

Item No. 507	PSC Deck Units_____ foot (meter) span	Per span
Item No. 507	PSC Caps	Per each

A. Beams

The quantity of beams, determined as provided in Subsection 507.4, “Measurement”, will be paid for at the Contract Price per linear foot (meter) of each different type designation, complete in place.

B. PSC Box Beams

The quantity of PSC box beams will be paid for at the Contract Unit Price bid per linear foot (meter). Payment shall be full compensation for furnishing and erecting the beam.

C. Deck Units

The quantity of deck units will be paid for at the Contract Price per span of each different nominal span length, complete in place.

D. Caps

The quantity of caps will be paid for at the Contract Price per each, complete in place.

E. Partial Payments

Material allowance payments for bridge beams will be determined and paid for according to the requirements of Subsection 109.07, “Partial Payments.”

507.5.01 Adjustments

Upon completion of the erection in its final manner and position, 95 percent of the Contract Price will be paid on the next statement.

If there is no field rubbing or painting required, the 95 percent may be increased to 100 percent of the Contract Price. If this work is required, the remaining 5 percent will be included on the next statement after the Contractor satisfactorily completes the work.

Section 508—Asphalt Plank Bridge Floor

508.1 General Description

This work consists of laying asphalt plank slabs as a wearing surface on a prepared bridge deck.

508.1.01 Definitions

General Provisions 101 through 150.

508.1.02 Related References**A. Standard Specifications**

Section 530—Waterproofing Fabrics

B. Referenced Documents

General Provisions 101 through 150.

508.1.03 Submittals

General Provisions 101 through 150.

508.2 Materials

Ensure that materials meet the requirements of the following Specifications:

Material	Section
Premolded Asphalt Plank	825.2.01
Cutback Asphalt	821.2.01
Asphalt Cement	820.2.01

508.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

508.3 Construction Requirements

508.3.01 Personnel

General Provisions 101 through 150.

508.3.02 Equipment

General Provisions 101 through 150.

508.3.03 Preparation

General Provisions 101 through 150.

508.3.04 Fabrication

General Provisions 101 through 150.

508.3.05 Construction

Construct the wearing surface of asphalt plank on a concrete base, timber base, or waterproofed base as follows:

A. Concrete Base

When laying the plank on a concrete base, construct the plank floor as follows:

1. Ensure that the concrete is dry and free from dust and rubbish.
2. Remove surplus talc and other powder from the base.
3. Apply approximately 1 gal (1 L) of cold cutback asphalt to each 100 ft² (9 m²) of surface.
4. Brush the cutback asphalt coat out well and allow it to dry.
5. Mop the surface with approximately 50 lbs (22 kg) of hot-applied asphalt cement for each 100 ft² (9 m²) of surface. Imbed the plank in the cement as follows:
 - a. Mop and lay the plank simultaneously before the cement cools.
 - b. Lay the plank straight and smooth with staggered joints. Ensure that the plank is free of irregularities.
 - c. Crowd each plank snugly against adjacent planks so that seams and spaces between planks are completely filled with asphalt cement.

B. Timber Base

When laying the plank on a timber base, construct the plank floor as follows:

1. Securely spike the wooden floor upon which plank will be laid.
2. Ensure that the surfaces of adjacent planks do not vary by more than 1/8 in (3 mm).
3. Remove nails, dirt, rubbish, etc. before laying the asphalt plank.
4. Lay the plank the same as for a concrete base (see Subsection 508.3.05.A, "Concrete Base").

C. Waterproofed Base

When laying the plank on a waterproofed base (see Section 530), lay the plank with the final mop of hot asphalt or tar described in Subsection 508.3.05.A.5.

1. Mop the surface and lay the plank simultaneously before the asphalt or tar cools.
2. Lay the plank as specified in Subsection 508.3.05.A.5 steps b and c.

508.3.06 Quality Acceptance

General Provisions 101 through 150.

508.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

508.4 Measurement

The Work is measured for payment in square yards (meters) of accepted plank:

- The length calculated is measured along the surface.
- The width calculated is the width of surface laid.

508.4.01 Limits

General Provisions 101 through 150.

508.5 Payment

This work will be paid for at the Contract Price per square yard (meter) for asphalt plank bridge floor complete in place.

Payment will be made under:

Item No. 508	Asphalt plank bridge floor _____ in (mm) thickness	Per square yard (meter)
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508.5.01 Adjustments

General Provisions 101 through 150.

Section 509—Prestressing Concrete by Post Tensioning

509.1 General Description

This work consists of prestressing concrete by post-tensioning cast-in-place concrete. The work includes furnishing, placing, and tensioning prestressing steel according to the Plan details and these Specifications.

509.1.01 Definitions

Working Force and Working Stress: The force and stress remaining in the prestressing steel after the following losses:

- Creep and shrinkage of concrete
- Elastic compression of concrete
- Creep of steel
- Loss in post-tensioned prestressing steel from the sequence of stressing
- Friction and anchor set (see Subsection 509.3.05.J, “Post-Tension the Tendons,” steps 18 to 19)
- Other losses peculiar to the method, technique, or system of prestressing (see Subsection 509.3.05.J, “Post-Tension the Tendons,” step 21)

509.1.02 Related References**A. Standard Specifications**

Section 501—Steel Structures

Section 535—Painting Structures

B. Referenced Documents

AASHTO Specifications for Highway Bridge, Article 9.16.1

AASHTO Specifications for Highway Bridge, Article 9.16.2

ASTM C 109

ASTM A 416